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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,474	07/16/2003	Darwin Rambo	15019US01	8619
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EXAMINER				
HAN, QI				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/620,474

**Applicant(s)**

RAMBO ET AL.

**Examiner**

QI HAN

**Art Unit**

2626

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 September 2008 and 15 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-13, 15-17 and 19-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-13, 15-17 and 19-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Response to Amendment***

2. This communication is responsive to the applicant's Pre-Appeal Conference request filed on 11/10/2008. The Pre-Appeal Conference decision filed on 01/15/2009, indicated to reopen prosecution, so that the finality of the previous rejection filed on 06/10/2008 is withdrawn.

The examiner withdrew the claim objection, because the applicant amended the corresponding claims.

***Response to Arguments***

3. The applicant's arguments in the amendment filed on 09/10/2008, regarding claim rejection under 35 USC 102/103 have been fully considered but they are not persuasive.

In response to applicant's arguments regarding claim 19 that "Goodman, at col. 4 lines 12-13, describes that a type of codec may be used to determine a level of service to perform a voice call listening quality test in which a speech sample is transmitted between a first probe to a second probe. Thus, this has nothing to do with "receiving a selected output from a signal processing element of said one or more signal processing elements...Thus, the Applicants respectfully submit that the Office Action has not shown a teaching of each and every element that is recited in Claim 19" (Remarks: page 14, paragraph 1), the examiner respectfully disagrees with the applicant's arguments and has a different view of the prior art teachings and

the claim interpretations. It is noted that the prior art does disclose all limitations of the claim, including the argued limitation, based on broadest reasonable interpretation of the claim. It should be pointed out that the claimed/argued limitation "a selected output from a signal processing element of said one or more signal processing elements" is broad. It is also noted that there is no specific or detailed information in the claim for the terms "signal processing elements" and its "output", and even no any specific information in the specification for the terms "selected output", so that, as stated in the rejection, the 'gateway', 'IP communication devices', and 'codecs (i.e. coders/decoders)' disclosed by Goodman (Figs. 1-2, col. 3, lines 12-27 an col. 4, lines 12-33) can all be read on "signal processing element". Accordingly, any information/signal from the these elements can be read on the claimed "output", and the disclosure of 'the voice listening quality test (implying receiving some output to test) is performed for each level of service as determined by the type (selected by type) of codec...' (Goodman: col. 4, lines 3-17) can be properly read on the claimed/argued limitation. Further, it is noted that other portions of the disclosure (such as quality test model, algorithm and PAMS/PSQM measurements) cited in the rejection are also read on the claimed/argued limitation (see detail in the claim rejection), but the applicant failed to respond to these portions of disclosure in the rejection.

In response to applicant's arguments regarding claim 29 that "Based on the preceding passage obtained from Goodman, at col. 5, lines 17-25, there is no teaching of "said configuration data used in determining said selected output from one or more outputs corresponding to said one or more signal processing elements" (Remarks: page 16, paragraphs 2-3), the examiner respectfully disagrees with the applicant's arguments because this claim depends

on the its parent claim(s) and the rejection for all parent limitations that is related/linked to this dependent claim limitation must be considered as a whole. In this case, the argued limitation directly is connoted to the rejected limitation of claim 1, which had been properly rejected as stated the rejection of claim 1, and the applicant failed to provide persuasive arguments and/or failed to fully respond to the rejection of claim 1 (see above). It can be seen that the rejection based on the cited portions of prior art teachings of claim 29 and the related rejection of its parent claim 1 covered all claimed limitations. Further, even with cited portions of prior art disclosure for claim 29, the rejection still properly addressed and covered the argued limitation, based on broadest reasonable interpretation of the claim with the same or similar reason regarding "signal process elements" and "selected output" as stated for claim 1 (see above). Moreover, it is noted that that the prior art teachings should be considered as a whole, not only one specific portion.

In response to applicant's arguments regarding claim 11 that "the Applicants maintain that the Office Action has not shown a teaching of "receiving said reference speech samples captured at one or more processing points within a gateway of said communication system," as recited in Claim 11" (Remarks: pages 9-10; and page 17-18, bridge paragraph), the examiner respectfully disagrees with the applicant's arguments and has a different view of the prior art teachings and the claim interpretations. It is noted that the prior art (Goodman) not only "describes transmitting speech samples from a first test probe to a second test probe (through one or more gateways)" as admitted by the applicant (Remarks: page 10, paragraph 1), but also teachings the argued limitation (see Goodman: Figs. 5-6, col. 9, line 24 to col. 10, line 13 and

col. 3, lines 23-27), wherein VOIP communication device can be gateway that has a embedded reference voice file and a codec to be evaluated, so as being properly read on the claimed.

Regarding other claim, the response to the applicant's arguments (Remarks: page 18, paragraph 2 to page 21, paragraph 1) is based on the same reason described for claims 19 and 29, because the arguments are based on the same issue(s) as claims 19 and 29 stated above.

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 11-13 and 15-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claim 11, it is rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent<sup>1</sup> and recent Federal Circuit decisions<sup>2</sup> indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. In this case, the claimed steps of “receiving...;

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<sup>1</sup> *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

<sup>2</sup> *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

receiving ...; and determining ...”, are of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine. For example, the claim language itself is sufficiently broad to read on that a person speaks some words (speech samples) toward some medium (such as a pipe, thread, wall or even air -- communication system in broad sense), and another person hears the spoken words at some distant point of the medium by using his ear(s), and mentally figures out subjective good or bad score reflecting quality of the heard words, without a machine for performing the steps. Therefore, the claimed invention, as whole, is directed to non-statutory subject matter.

Regarding claims 12-13 and 15-16, the rejection is based on the same reason as described for claim 11, because the claims include the same or similar problematic limitations as claim 11, wherein all steps are of sufficient breadth that it would be reasonably interpreted as a series of steps completely performed mentally, verbally or without a machine, for example, using paper and pencil with drawings and/or calculations to go through each of operation steps, to show (display) the rough figures/result data, without a machine for performing the steps.

5. To expedite a complete examination of the instant application the claims rejection under 35 U.S.C 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

***Claim Rejections - 35 USC § 102***

6. Claims 11-12, 17, 19-20, 23, 27-31, 34, 36-37, 40-42, 47-49 and 52 are rejected under 35 U.S.C. 102(e) as being anticipated by GOODMAN (US 7173910 B2).

As per **claim 19**, GOODMAN discloses 'service level agreements based on objective voice quality testing for voice over IP (VOIP) networks' (title) for 'a network-wise monitoring system' (col. 7, lines 3-5), comprising:

"a first voice analysis platform for transmitting a reference speech sample through a communication system"; (Figs. 1-2 and col. 3, lines 5-67, 'voice quality test probes 14a and 14b' 'store software algorithm implementing a perceptual or voice call listening quality test model', 'analyzes the voice quality of the recorded voice file (so interpreted as voice analysis platform)', and 'transmit ...the reference voice files (speech sample) over the speech path within the VOIP network (communication system)', 'one test probe acts as a resource to transmit the file'); and

"a second voice analysis platform for receiving said reference speech sample transmitted through said communication system" (similarly, Figs. 1-2 and col. 3, lines 5-57, 'voice quality test probes 14a and 14b' 'store software algorithm implementing a perceptual or voice call **listening** (receiving) quality test model (so as interpreted as voice analysis platform)' and '**receive** the reference voice files (speech sample) over the speech path within the VOIP network (communication system)', 'a second test probe acts as a resource to receive the file transmitted'),

"said communication system comprising one **or** more signal processing elements used to process said reference speech sample", (Figs. 1-2 and col. 3, lines 12-27, 'gateway' and 'IP communication devices' (signal processing elements), col. 4, lines 12-33, 'codecs' (signal processing elements) used by 'the VOIP communications device' including 'gateway' (can be interpreted as signal processing element or communication system)'),



“said first voice analysis platform or said second voice analysis platform receiving a selected output from a signal processing element of said one or more signal processing elements, said output used to compute a voice quality score” (Figs. 1-3 and col. 4, lines 3-17, ‘when the analysis is complete, the test probe translates the difference into a PAMS score’, ‘the voice listening quality test is performed for each level of service as determined (selecting output from a signal processing element) by the type of codec (i.e., coder/decoder) that is used by the VOIP communication device that is performing the voice encoding and decoding operations’; col. 7, lines 12-22, ‘all test probes in the network are configured and controlled by the manager’ that ‘stores the consolidated information in a database for analysis’; col. 7, lines 30-60, ‘supports a large number of VOIP Points (outputs) of Presence (VOIP POPs)’; col. 3, lines 28-29, ‘the test probes also store a software algorithm implementing a perceptual or voice call listening quality test model’, including ‘Perceptual Analysis Measurement System (PAMS)’ and ‘Perceptual Speech Quality Measurement (PSQM)’ that provide objective voice quality scores; it is noted that either the test probe or combination of the test probes and the manager can be read on the voice analysis platform).

As per **claim 20** (depending on claim 19), as stated above, GOODMAN discloses “said one or more signal processing elements comprises a codec” (see rejection for claim 1 above).

As per **claim 23** (depending on claim 19), GOODMAN further discloses “said one or more signal processing elements comprises a packetizer” (col. 1, lines 8-26, ‘packet-based network’ ‘voice over IP (VOIP) network’, Figs.1-2, wherein ‘VOIP gateway’ necessarily or

inherently comprises a packetizer, since its output directly connected VOIP network, i.e. packet-based network).

As per **claims 27-28** (depending on claim 19), as stated above, GOODMAN discloses the corresponding voice quality score comprising “PAMS” (for claim 27) and “PSQM” (for claim 28) (col. 3, lines 28-29, see rejection for claim 1 above).

As per **claim 29** (depending on claim 19), GOODMAN further discloses:

“said first voice analysis platform comprises a software module, said software module comprising software that provides configuration data to a gateway” (col. 3, lines 32-36, col. 4, lines 12-33 and col. 5, lines 4-5, ‘test probes store a software algorithm (software module) implementing a perceptual or voice all listening quality test model’ that ‘is performed for each level of service’ based on ‘both codec (signal processing element) and IP signaling protocol (configuration data)’ corresponding to one of the assigned unique telephone numbers (also read on configuration data in broad sense) that is called (provided) to a gateway; also see Figs. 1 and 4),

“said gateway comprising one or more signal processing elements” (col. 4, lines 1218, ‘codec (i.e. coder/decoder) (interpreted as one or more signal processing elements)’ used by ‘VOIP communication device’ such as ‘gateways’ that implement one or more coding schemes (also read on signal processing elements) to support voice encoding/decoding’; Fig.4, wherein the data (telephone#, service level (or protocol) and routing info.) in the gateway configuration table can also be read on configuration data or signal processing elements),

“said configuration data used in determining said selected output from one or more outputs corresponding to said one or more signal processing elements” (col. 5, lines 17-25,

'gateway is configured with resources to perform both types of coding and signaling (configuration data)', 'the gateway 16a determines from the service level information associated with the called phone number (selected outputs)').

As per **claim 11**, it recites a method. As best understood in view of the rejection under 35 USC 101 (see above), the rejection is based on the same reason described for claim 19, because it also reads on the limitations of claim 11.

As per **claim 12** (depending on claim 11), GOODMAN further discloses "displaying said voice quality scores graphically" (col. 4, lines 10-11).

As per **claim 17** (depending on claim 11), GOODMAN further discloses "a voice over IP gateway" (col. 3, line 60).

As per **claim 30**, the rejection is based on the same reason described for claim 19, because it also reads on the limitations of claim 30.

As per **claims 31, 34, 36-37 and 40** (depending on claim 30), the rejection is based on the same reason described for claims 20, 23 and 27-29 respectively, because they recite the same or similar limitations as claims 20, 23 and 27-29 respectively.

As per **claim 41**, it recites a method. The rejection is based on the same reason described for claim 19, because the claim recites the same or similar limitation(s) as claim 19.

As per **claim 42** (depending on claim 41), the rejection is based on the same reason described for claim 12, because the claim recites the same or similar limitations as claim 12.

As per **claims 47-48** (depending on claim 41), the rejection is based on the same reason described for claims 27-28 respectively, because they recite the same or similar limitations as claims 27-28 respectively.

As per **claims 49 and 52** (depending on claim 11), the rejection is based on the same reason described for claims 20 and 23 respectively, because they recite the same or similar limitations as claims 20 and 23 respectively.

***Claim Rejections - 35 USC § 103***

7. Claims 21, 25, 32, 39, 50 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over GOODMAN in view of HOUH et al. (US 2002/0016937 A1).

As per **claims 21 and 25** (depending on claim 19), GOODMAN does not expressly disclose the signal processing element(s) comprising “a voice activity detector (VAD)” (for claim 21) and “a comfort noise generator (CNG)” (for claim 25). However, the feature is well known in the art as evidenced by HOUH who discloses ‘method and apparatus for unitizing a network processor as part of a test system’ (title), comprising that ‘a gateway is equipped with standard interfaces’ and ‘the necessary encoding/decoding, ...voice activity diction (read on voice activity detector) comfort noise generation (read on comfort noise generator) and packetizing/depacketizing are performed by the gateway’ (p(paragraph)39), and using ‘Perceptual Speech Quality Measurement (PSQM)’ (p55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify GOODMAN by providing signal processing element(s) comprising VAD and/or CNG with suitable testing measurement such as PSQM, as taught by HOUH, for the purpose (motivation) of providing a variety of functions for testing a network environment and devices (HOUH: p11).

As per **claims 32 and 39** (depending on claim 30), the rejection is based on the same reason described for claims 21 and 25 respectively, because they recite the same or similar limitations as claims 21 and 25 respectively.

As per **claims 50 and 54** (depending on claim 11), the rejection is based on the same reason described for claims 21 and 25 respectively, because they recite the same or similar limitations as claims 21 and 25 respectively.

8. Claims 22, 33 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over GOODMAN in view of CONNOR et al. (US 6,999,560 B1) hereinafter referenced as CONNOR.

As per **claim 22**(depending on claim 19), GOODMAN does not expressly disclose the signal processing element(s) comprising “an echo canceller”. However, the feature is well known in the art as evidenced by CONNOR who discloses ‘method and apparatus for testing echo canceller performance’ (title), comprising that ‘the echo canceller 38 runs on the packet voice gateway 26 (signal processing elements)’ (col. 1, lines 37-41) and providing ‘perceptual speech quality measure (PSQM) (col. 7, lines 12-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify GOODMAN by providing an echo canceller on a signal processing element (such as a gateway) with appropriate testing measure (such as PSQM), as taught by CONNOR, for the purpose (motivation) of removing echo and/or more effectively testing echo canceller performance (CONNOR: col. 1, lines 35-36 and col. 2, lines 43-44).

As per **claim 33** (depending on claim 30), the rejection is based on the same reason described for claim 22, because the claim recites the same or similar limitation(s) as claim 22.

As per **claim 51** (depending on claim 11), the rejection is based on the same reason described for claim 22, because the claim recites the same or similar limitation(s) as claim 22.

9. Claims 24, 26, 35, 38, 46 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over GOODMAN in view of EL-HENNAWEY et al. (US 2004/0071084 A1) hereinafter referenced as EL-HENNAWEY.

As per **claim 24** (depending on claim 19), GOODMAN does not expressly disclose the signal processing element(s) comprising "a jitter buffer". However, the feature is well known in the art as evidenced by EL-HENNAWEY who discloses 'non-intrusive monitoring of quality levels for voice communications over a packet-based network' (title), comprising using 'a jitter buffer' in 'a receiving system' (p57). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify GOODMAN by providing a jitter buffer in a receiving system (signal processing element), as taught by EL-HENNAWEY, for the purpose (motivation) of allowing the receiving system to wait until packets in a desired sequence and/or monitoring for real time voice quality levels in live calls (EL-HENNAWEY: p57 and p5).

As per **claim 26** (depending on claim 19), GOODMAN does not expressly disclose the corresponding voice quality score(s) comprising "PESQ". However, the feature is well known in the art as evidenced by EL-HENNAWEY who further discloses using standards 'for objectively assessing the quality of speech' including 'PAMS', 'PSQM' and 'PESQ' (p35; also p51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify GOODMAN by providing various standard speech quality measurements including PESQ, as taught by EL-HENNAWEY, for the purpose (motivation) of monitoring for

real time voice quality levels in live calls and/or evaluating voice quality on an active call in a non-intrusive manner (EL-HENNAWEY: p5 and p8).

As per **claim 35** (depending on claim 30), the rejection is based on the same reason described for claim 26, because the claim recites the same or similar limitations as claim 26.

As per **claim 38** (depending on claim 30), the rejection is based on the same reason described for claim 24, because the claim recites the same or similar limitation(s) as claim 24.

As per **claim 46** (depending on claim 41), the rejection is based on the same reason described for claim 26, because the claim recites the same or similar limitations as claim 26.

As per **claim 53** (depending on claim 11), the rejection is based on the same reason described for claim 24, because the claim recites the same or similar limitation(s) as claim 24.

10. Claims 13, 15-16 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over GOODMAN in view of BAUER et al. (US 2005/026189 A1) hereinafter referenced as BAUER.

As per **claim 13** (depending on claim 12), GOODMAN does not expressly disclose “displaying occurs by way of a graphical user interface”. However, the feature is well known in the art as evidenced by BAUER who discloses ‘methods and devices for correlating audio sample comparisons and network performance statistics’ (title), comprising ‘methods and devices evaluating audio (e.g. voice) quality in a network’ and displaying the ‘results’ and ‘statistics’ ‘in a user-friendly graphical user interface (GUI)’ (paragraph (hereinafter referenced as p) 6), and ‘the information selected for display includes the PSQM score’ (p44 and Fig.4). BAUER also teaches that the functionality provided by separate elements ‘can be combined

and/or integrated with the functionality of one or more of the other elements' and 'what is significant is the functionality provided by system (communication system)' (p15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify GOODMAN by providing GUI for displaying various information including voice quality scores and the related statistics, as taught by BAUER, for the purpose (motivation) of permit the user to more readily identify any degradation in quality and its cause (BAUER: p7).

As per **claim 15** (depending on claim 11), the rejection is based on the same reason described for claim 13, because the rejection for claim 13 covers the same or similar limitation(s) of claim 15.

As per **claim 16** (depending on claim 15), GOODMAN in view of BAUER further discloses "said statistical information comprises an average voice quality score and a variance" (BAUER: Fig. 4 shows the statistical information including 'average PSQM' and 'PSQM Std. Deviation (corresponding to equivalent measurement of variance)').

As per **claims 43-45** (depending on claim 41), the rejection is based on the same reason described for claims 13 and 15-16 respectively, because they recite the same or similar limitations as claims 13 and 15-16 respectively.

### ***Conclusion***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to QI HAN whose telephone number is (571)272-7604. The examiner can normally be reached on M-TH:9:00-19:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richmond Dorvil can be reached on (571)-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QH/qh  
March 20, 2009  
/Qi Han/  
Primary Examiner, Art Unit 2626